

Sepehr Dehdashtian

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Education

Michigan State University | Ph.D. in Computer Science Jun. 2022 – Present

- **Focus:** Responsible AI, Generative AI, Representation Learning, Multimodal Models, Computer Vision
- **GPA:** 4.0/4.0

Sharif University of Technology | M.Sc. in Electrical Engineering Sep. 2018 – Feb. 2021

- **Thesis:** Blind Recognition of Channel Codes Using Deep Neural Networks
- **GPA:** 3.87/4.0

Shahid Chamran University of Ahvaz | B.Sc. in Electrical Engineering Sep. 2014 – Aug. 2018

- **GPA:** 3.93/4.0 (ranked 1st)

Publications

Fairness and Bias Mitigation in Computer Vision: A Survey 2024

[Sepehr Dehdashtian](#)*, Ruozhen He*, Yi Li, Guha Balakrishnan, Nuno Vasconcelos, Vicente Ordenez, Vishnu Naresh Boddeti

IEEE Transaction on Pattern Analysis and Machine Intelligence (TPAMI) (Under Review)

The Dark Side of Dataset Scaling: Evaluating Racial Classification in Multimodal Models 2024

Abeba Birhane*, [Sepehr Dehdashtian](#)*, Vinay Prabhu, Vishnu Naresh Boddeti

ACM Conference on Fairness, Accountability, and Transparency (FAccT) 2024

Utility-Fairness Trade-Offs and How to Find Them 2024

[Sepehr Dehdashtian](#), Bashir Sadeghi, Vishnu Naresh Boddeti

IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2024

FairerCLIP: Debiasing CLIP's Zero-Shot Predictions using Functions in RKHSs 2024

[Sepehr Dehdashtian](#)*, Lan Wang*, Vishnu Naresh Boddeti

International Conference on Learning Representations (ICLR) 2024

On characterizing the trade-off in invariant representation learning 2022

Bashir Sadeghi, [Sepehr Dehdashtian](#), Vishnu Naresh Boddeti

Transactions on Machine Learning Research (TMLR)

Deep-Learning Based Blind Recognition of Channel Code Parameters over Candidate Sets under AWGN and Multi-Path Fading Conditions 2021

[Sepehr Dehdashtian](#), Matin Hashemi, Saber Salehkaleybar

IEEE Wireless Communications Letters

Technical Skills

Topics: Computer Vision, Representation Learning, Multimodal Models, Generative Models, Responsible AI, Vision-Language Models

Languages: Python, C++, CUDA, Verilog, VHDL

ML Frameworks: PyTorch, PyTorch-Lightning, TensorFlow, Keras, OpenCV, Scikit-Learn

Others: RevealJS, Git, MATLAB, FPGA

Awards & Honors

- **STEAMpower Fellowship** 2024
- **TMLR Outstanding Paper Award Runner-Up and TMLR Featured Certification Award** 2023
- **Ranked 2nd GPA the graduating class of 2021** | Sharif University of Technology 2021
- **Ranked 5th out of 30,000** | Iranian University Entrance Exam for Master's degree 2018
- **Ranked 1st GPA the graduating class of 2018** | Shahid Chamran University of Ahvaz 2018

Professional Experience

Research Assistant at Michigan State University Jun. 2022 – Present

- Developed algorithms to make computer vision, multimodal, and generative models fair and debiased.
- Published papers in top computer vision and machine learning conferences: ICLR'24, CVPR'24.

Research Assistant at Sharif University of Technology Nov. 2018 – Feb. 2021

- Developed deep learning based methods for blind recognition of channel codes.
- Published a research paper in IEEE Wireless Communication Letters.

Student Intern at Radaq Company Jun. 2017 – Aug. 2017

- Designed a data logger system for agricultural sensors.
- Self-studied PHP and HTML to develop a website for the data logger system

Relevant Coursework

- Machine Learning
- Deep Learning
- Computer Vision
- Natural Language Processing
- Pattern Recognition and Analysis
- Adversarial Machine Learning

Projects

- **Mitigating Political Bias in Pre-Trained Large Language Models** 2023
- **Visually Explaining Fair Representation Learning—A Model Perspective** 2023
- **Video Synopsis using OpenCV in Python** 2019

Mentorship

- **Mentee:** Yilin Zheng
Role: Master Student at Michigan State University, USA
Mentoring Period: Jan. 2024 – present
Project: “FairDiagnosis: Towards Fair Glaucoma Diagnosis”

Teaching

- Verilog Tutor | Shahid Chamran University 2017
- Communication Systems Tutor | Shahid Chamran University 2015

Services & Activities

- Scientific-Students Associations of Clean Energy | Deputy Secretary 2016
- Scientific-Students Associations of EE Department | Member 2015